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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,661	04/30/2001	Mototaka Iwata	MIZ34	2740

6980 7590 12/22/2003

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EXAMINER

DUONG, THANH P

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 12/22/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/845,661

Applicant(s)

IWATA ET AL.

Examiner

Tom P Duong

Art Unit

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-38 and 40-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-38 and 40-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

In response to Applicant's Supplemental Amendment filed on December 5, 2003, the agreement of allowable combination of claims 1 and 18, and 39 and 58 over telephone interview is withdrawn in view of the newly discovered reference(s) to Blough et al. (6,120,388). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 2-38 and 40-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blough et al. (6,120,388) in view of Kosmatka (5,971,868) and Werner (6,319,150). With respect to claims 2-5, 13-19, and 43-44, Blough discloses a golf club having various non-concentric regions including the sweet spot region B, and periphery regions A, C, and D (Figs. 2 and Abstract) wherein the sweet spot region B has a thickness greater than its periphery regions (Table 1, clubs #6-10). Blough further discloses the thickness of each regions can be varied to control the center of gravity, increase sweet area, and improve the moment of inertia. Kosmatka also makes it clear that contoured back face surface are formed with non-concentric periphery regions and

the thickest region is at the intersection of its horizontal and vertical stiffening regions (Figs. 1B and 2B) and the thickest regions are provided in order to withstand the largest internal loads. Likewise, Werner also teaches the central area (sweet spot) of the striking face has the greatest bending stress and progressively less toward the periphery regions (Col. 2, lines 33-42) and it is inherent and obvious that the regions with the largest bending stress and/or internal loads coincide with the regions with the largest flexural range (sweet spot area as defined by Applicant). Thus, it would have been obvious in view of Kosmatka and Werner to one having ordinary skill in the art that the striking face structure of Blough has the flexural range of the claimed invention or at most thru routine optimization. With respect to claims 6-12 and 40-42, Werner discloses a elliptical contour face as shown in Fig. 3 with x-axis and y-axis coordinates and it appears that the elliptical face with flexural range having aspect ratio of 1-4 and dimension of 150-1500 mm². With respect to claims 20-38 and 47-57, Blough shows on Table 1 that each club head within a club set has a plurality of regions where its thicknesses are optimized in order to improve the center of gravity, sweet spot, and moment of inertia. With respect to claims 45-46, it is inherent that golf manufacturers will test the club head to ensure that it can withstand a load impacted by a golf ball. Claims 58-78 recite limitations similar to claims 2-38 and 40-57; thus, claims 58-78 are rejected for the same reasons as applied in claims 2-38 and 40-57, above.

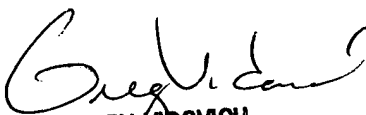
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (703) 305-4559. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on (703) 308-1513. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

Tom Duong


GREGORY VIDOVICH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700